



National Committee on Uniform Traffic Control Devices

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Attachment No.: 1
Item No.: 18B-RW-01

NCUTCD Proposal for Changes to the Manual on Uniform Traffic Control Devices

TECHNICAL COMMITTEE: Regulatory & Warning Signs Committee and Signals Technical Committee
ITEM NUMBER: 18B-RW-01
TOPIC: R10-23, CROSSWALK STOP ON RED signs for Pedestrian Hybrid Beacon (PHB) locations
ORIGIN OF REQUEST: Signals Technical Committee Representative (Richard Nassi). RW and SIG Technical Committees Joint Task force: Ross Oyen (RWSTC) (chair), Richard Nassi (STC), Lee Roadifer (RWSTC), Tom Heydel (RWSTC)
AFFECTED SECTIONS OF MUTCD: Section 2B.53 and 4F.02

DEVELOPMENT HISTORY: Task force: 2-1-18, revised 2-2-18, revised 2-14-18

- Approved by RW Technical Committee: 06/20/2018, **READY FOR SPONSORS**
- Approved by SIGNAL Technical Committee: 06/20/2018
- Approved by RW Technical Committee following sponsor comments: xx/xx/xxxx
- Approved by SIGNAL Technical Committee following sponsor comments: xx/xx/xxxx
- Approved by NCUTCD Council: xx/xx/xxxx

This is a proposal for recommended changes to the MUTCD that has been developed by a technical committee of the NCUTCD. The NCUTCD is distributing it to its sponsoring organizations for review and comment. Sponsor comments will be considered in revising the proposal prior to NCUTCD Council consideration. This proposal does not represent a revision of the MUTCD and does not constitute official MUTCD standards, guidance, or options. If approved by the NCUTCD Council, the recommended changes will be submitted to FHWA for consideration for inclusion in a future MUTCD revision. The MUTCD can be revised only through the federal rulemaking process.

SUMMARY:

When Pedestrian Hybrid Beacons (PHBs) were first installed in 2000 in Tucson, Arizona the R10-23 (CROSSWALK STOP ON RED) sign was used, along with a temporary sign (FLASHING RED, STOP, PROCEED WHEN SAFE) to inform drivers they may proceed when crossing was clear. Many agencies started using other signs such as pedestrian warning sign (W11-2), the school warning sign (S1-1) or the Pedestrian/Bicycle combination sign (W11-15) and other signs. The R10-23 sign is a SHALL condition in Section 4F.02.

32 Many States and other municipalities have used PHB's for many years and find that the R10-23
33 sign is no longer required since drivers understand that they have to stop on a red indication.



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36 **DISCUSSION:**

37 The consistent meaning throughout the MUTCD of a flashing red signal indication (Section
38 4D.04, item F of paragraph 3) is that a road user must come to a complete stop and then proceed
39 only when it is safe to do so subject to the rules applicable after making a stop at a STOP sign.
40 This same consistent meaning applies to traffic control signals (Chapter 4D, pedestrian hybrid
41 beacons (Chapter 4F), emergency-vehicle hybrid beacons (Section 4G.04), intersection control
42 beacons (Section 4L.02), stop beacons (Section 4L.05), and grade crossing flashing-light signals
43 (Section 8C.02). (Source: Bruce Friedman email of August 12, 2016).

44 The R10-23 CROSSWALK STOP ON RED sign should be an optional sign and the practitioner
45 should be allowed to determine the need for the sign based on engineering judgment.

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47 **RECOMMENDED MUTCD CHANGES**

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49 The following present the proposed changes to the current MUTCD within the context of the
50 current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and
51 proposed deletions from the MUTCD are shown in ~~red strikethrough~~. Changes previously
52 approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double
53 underline for additions and ~~green double strikethrough~~ for deletions. In some cases, background
54 comments may be provided with the MUTCD text. These comments are indicated by
55 [highlighted light blue in brackets].

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57 **PART 2. SIGNS**

58 **Chapter 2B. REGULATORY SIGNS, BARRICADES, AND GATES**

59

60 **Section 2B.53 Traffic Signal Signs (R10-5 through R10-30)**

61 Option:

62 01 To supplement traffic signal control, Traffic Signal signs R10-5 through R10-30 may be
63 used to regulate road users.

64 02 Traffic Signal signs (see Figure 2B-27) may be installed at certain locations to clarify signal
65 control. Among the legends that may be used for this purpose are LEFT ON GREEN ARROW
66 ONLY (R10-5), STOP HERE ON RED (R10-6 or R10-6a) for observance of stop lines, DO
67 NOT BLOCK INTERSECTION (R10-7) for avoidance of traffic obstructions, USE LANE(S)
68 WITH GREEN ARROW (R10-8) for obedience to lane-use control signals (see Chapter 4M),

69 LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12), and LEFT TURN YIELD
 70 ON FLASHING RED ARROW AFTER STOP (R10-27).

Figure 2B-27 Traffic Signal Signs and Plaques



71

72 *Guidance:*

73 *03 If used, the LEFT ON GREEN ARROW ONLY (R10-5) sign, the LEFT TURN YIELD ON*
 74 *GREEN (symbolic circular green) (R10-12) sign, or the LEFT TURN YIELD ON FLASHING*
 75 *RED ARROW AFTER STOP (R10-27) sign should be located adjacent to the left-turn signal*
 76 *face.*

77 *Option:*

78 *04 If needed for additional emphasis, an additional LEFT TURN YIELD ON GREEN*
 79 *(symbolic circular green) (R10-12) sign with an AT SIGNAL (R10-31P) supplemental plaque*
 80 *(see Figure 2B-27) may be installed in advance of the intersection.*

81 *05 In situations where traffic control signals are coordinated for progressive timing, the Traffic*
 82 *Signal Speed (I1-1) sign may be used (see Section 2H.03).*

83 **Standard:**

84 **06 The CROSSWALK STOP ON RED (symbolic circular red) (R10-23) sign (see Figure**
 85 **2B-27) shall only be used in conjunction with pedestrian hybrid beacons (see Section**
 86 **4F.02).**

87 **07 The EMERGENCY SIGNAL (R10-13) sign (see Figure 2B-27) shall be used in**
 88 **conjunction with emergency-vehicle traffic control signals (see Section 4G.02).**

89 **08 The EMERGENCY SIGNAL—STOP ON FLASHING RED (R10-14 or R10-14a) sign**
 90 **(see Figure 2B-27) shall be used in conjunction with emergency-vehicle hybrid beacons (see**
 91 **Section 4G.04).**

92 *Option:*

93 *09 In order to remind drivers who are making turns to yield to pedestrians, a Turning Vehicles*
 94 *Yield to Pedestrians (R10-15) sign (see Figure 2B-27) may be used.*

95 *10 A U-TURN YIELD TO RIGHT TURN (R10-16) sign (see Figure 2B-27) may be installed*
 96 *near the left-turn signal face if U-turns are allowed on a protected left-turn movement on an*
 97 *approach from which a right-turn GREEN ARROW signal indication is simultaneously being*
 98 *displayed to drivers making a right turn from the conflicting approach to their left.*

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PART 4. HIGHWAY TRAFFIC SIGNALS

101 **CHAPTER 4F. PEDESTRIAN HYBRID BEACONS**

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103 **Section 4F.01 Application of Pedestrian Hybrid Beacons**

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105 Support:

106 01 A pedestrian hybrid beacon is a special type of hybrid beacon used to warn and control
107 traffic at an unsignalized location to assist pedestrians in crossing a street or highway at a marked
108 crosswalk.

109 Option:

110 02 A pedestrian hybrid beacon may be considered for installation to facilitate pedestrian
111 crossings at a location that does not meet traffic signal warrants (see Chapter 4C), or at a location
112 that meets traffic signal warrants under Sections 4C.05 and/or 4C.06 but a decision is made to
113 not install a traffic control signal.

114 Standard:

115 03 **If used, pedestrian hybrid beacons shall be used in conjunction with signs and
116 pavement markings to warn and control traffic at locations where pedestrians enter or
117 cross a street or highway. A pedestrian hybrid beacon shall only be installed at a marked
118 crosswalk.**

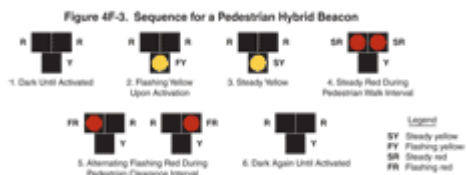
119
120 **Section 4F.02 Design of Pedestrian Hybrid Beacons**

121 Standard:

122 01 **Except as otherwise provided in this Section, a pedestrian hybrid beacon shall meet the
123 provisions of Chapters 4D and 4E.**

124 02 **A pedestrian hybrid beacon face shall consist of three signal sections, with a
125 CIRCULAR YELLOW signal indication centered below two horizontally aligned
126 CIRCULAR RED signal indications (see Figure 4F-3).**

127
128 **Figure 4F-3 Sequence for a Pedestrian Hybrid Beacon**



129
130 03 **When an engineering study finds that installation of a pedestrian hybrid beacon is
131 justified, then:**

- 132 **A. At least two pedestrian hybrid beacon faces shall be installed for each approach of
133 the major street,**
134 **B. A stop line shall be installed for each approach to the crosswalk,**
135 **C. A pedestrian signal head conforming to the provisions set forth in Chapter 4E shall
136 be installed at each end of the marked crosswalk, and**
137 **D. The pedestrian hybrid beacon shall be pedestrian actuated.**

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139
140 *Guidance:*

141 04 When an engineering study finds that installation of a pedestrian hybrid beacon is justified,
142 then:

- 143 A. The pedestrian hybrid beacon should be installed at least 100 feet from side streets or
- 144 driveways that are controlled by STOP or YIELD signs,
- 145 B. Parking and other sight obstructions should be prohibited for at least 100 feet in
- 146 advance of and at least 20 feet beyond the marked crosswalk, or site accommodations
- 147 should be made through curb extensions or other techniques to provide adequate sight
- 148 distance,
- 149 C. The installation should include suitable standard signs and pavement markings, and
- 150 D. If installed within a signal system, the pedestrian hybrid beacon should be coordinated.

151
152 05 On approaches having posted or statutory speed limits or 85th-percentile speeds in excess of
153 35 mph and on approaches having traffic or operating conditions that would tend to obscure
154 visibility of roadside hybrid beacon face locations, both of the minimum of two pedestrian hybrid
155 beacon faces should be installed over the roadway.

156 06 On multi-lane approaches having a posted or statutory speed limits or 85th-percentile
157 speeds of 35 mph or less, either a pedestrian hybrid beacon face should be installed on each side
158 of the approach (if a median of sufficient width exists) or at least one of the pedestrian hybrid
159 beacon faces should be installed over the roadway.

160 07 A pedestrian hybrid beacon should comply with the signal face location provisions
161 described in Sections 4D.11 through 4D.16.

162 **Standard:**

163 ~~08—A CROSSWALK STOP ON RED (symbolic circular red) (R10-23) sign (see Section~~
164 ~~2B.53) shall be mounted adjacent to a pedestrian hybrid beacon face on each major street~~
165 ~~approach. If an overhead pedestrian hybrid beacon face is provided, the sign shall be~~
166 ~~mounted adjacent to the overhead signal face.~~

167 Option:

168 08 A CROSSWALK STOP ON RED (symbolic circular red) (R10-23) sign (see Section 2B.53)
169 may be mounted adjacent to a pedestrian hybrid beacon face on each major street approach.

170 Guidance:

171 08a If an overhead pedestrian hybrid beacon face is provided and an R10-23 sign is used, the
172 sign should be mounted adjacent to the overhead signal face.

173 Option:

174 09 A Pedestrian (W11-2) warning sign (see Section 2C.50) with an AHEAD (W16-9P)
175 supplemental plaque may be placed in advance of a pedestrian hybrid beacon. A warning beacon
176 may be installed to supplement the W11-2 sign.

177 Guidance:

178 10 If a warning beacon supplements a W11-2 sign in advance of a pedestrian hybrid beacon, it
179 should be programmed to flash only when the pedestrian hybrid beacon is not in the dark mode.

180 **Standard:**

181 11 If a warning beacon is installed to supplement the W11-2 sign, the design and location
182 of the warning beacon shall comply with the provisions of Sections 4L.01 and 4L.03.

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